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ABSTRACT

Much of the literature on random-digit-dial (RDD) response rates focuses on the benefits and drawbacks of various screening and sampling procedures. The common assumption is that enumeration is more invasive, leading to lower response rates, but there are concerns about population coverage and self-selection with other methods. When the target population is found in a subset of households, a screen-out question may be used to eliminate ineligible households prior to employing sampling methods. Using approximately 10,000 telephone numbers from the National Household Education Survey (NHES) sampling frame, this experiment examined the impact on screening response rates of: full enumeration of all households (no screen-out) versus a screen-out question, and mailing an advance letter. An RDD sample was divided into four quarter samples: (1) screen-out and letter; (2) screen-out and no letter; (3) no screen-out and letter; and (4) no screen-out and no letter. Response rates were significantly higher in the screen-out condition. The advance mailing increased cooperation in the no screen-out condition, but not in the screen-out condition. The no screen-out condition consumed substantially more resources than a screen-out sample of the same size, but also provided more data for each completed case. Implications of this experiment for the design of future surveys are discussed. Two appendixes present the NHES field test letter and the advance letter. (Contains 7 tables, 1 exhibit, and 24 references.) (Author/SLD)

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Technical Report December 1997

National Household Education Survey

An Experiment in Random-Digit-Dial Screening

National Household Education Survey

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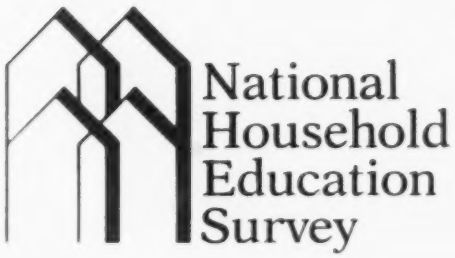
An Experiment in Random-Digit-Dial Screening



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ABSTRACT

Much of the literature on RDD response rates focuses on the benefits and drawbacks of various screening and sampling procedures. The common assumption is that enumeration is more invasive, leading to lower response rates, but there are concerns about population coverage and self-selection with other methods. When the target population is found in a subset of households, a screen-out question may be used to eliminate ineligible households prior to employing sampling methods. This experiment examined the impact on screening response rates of (1) full enumeration of all households (no screen-out) versus a screen-out question and (2) mailing an advance letter. An RDD sample was divided into four quarter-samples: screen-out and letter; screen-out and no letter; no screen-out and letter; no screen-out and no letter. Response rates were significantly higher in the screen-out condition. The advance mailing increased cooperation in the no screen-out condition, but not in the screen-out condition. The no screen-out condition consumed substantially more resources than a screen-out sample of the same size, but also provided more data for each completed case. Implications of this experiment for the design of future surveys are discussed.

Introduction

One of the challenges of random-digit-dial (RDD) surveys is to obtain the cooperation of households at the beginning of a household contact. Unlike list-sample surveys, in which sampled persons are asked for by name and are often connected to a sponsoring or cooperating institution, little is known about the telephone numbers selected for an RDD study, and respondents may perceive the call as a telemarketing attempt or an unwanted intrusion. A household screening response rate in the 1995 National Household Education Survey (NHES:95) that was significantly lower than previous NHES administrations led to an interest in identifying the source of the loss in response and exploring survey designs that maximize response rates at the screening level.

Because the NHES:95 was the first survey in this ongoing data collection system to use full enumeration of all household members in all sampled households, it was suspected that this approach was a likely factor in the decline of the screening response rate. A systematic experiment was developed and executed to examine the impact of the full enumeration approach on survey response. The experiment also included a test of an advance letter to households for which addresses could be obtained, based on the success of a nonresponse letter utilized in the NHES:95.

This report presents the design and results of this experiment in RDD screening. It begins with an overview of the NHES survey system, then proceeds through the design, data collection and analysis of the data from the experiment.

Background of the National Household Education Survey

The National Household Education Survey (NHES) is a data collection system of the National Center for Education Statistics (NCES), which has as its legislative mission the collection and publication of data on the condition of education in the Nation. The NHES is specifically designed to support this mission by providing information on those educational issues that are best addressed by contacting households rather than schools or other educational institutions. The NHES provides descriptive data on the educational activities of the U.S. population and offers policymakers, researchers, and educators a variety of statistics on the condition of education in the United States.

The NHES is a telephone survey of the noninstitutionalized civilian population of the U.S. Households are selected for the survey using random digit dialing (RDD) methods, and data are collected using computer-assisted telephone interviewing (CATI) procedures. From 45,000 to 64,000 households are screened for each administration, and individuals within households who meet predetermined criteria for populations of interest in the given survey

(usually defined by age or grade in school) are sampled for more detailed or extended interviews. The data are weighted to permit estimates of the entire population. The NHES survey for a given year typically consists of a set of screening questions (Screener), which collects household composition and demographic data, and two extended interviews on different education-related topical components. In order to assess data item reliability and inform future NHES surveys, each administration also includes a subsample of respondents for a reinterview.

Throughout its history, the NHES has collected data in ways that permit estimates to be tracked across time. This includes repeating full topical components on a rotating basis in order to provide comparative data across survey years. In addition, each administration of the NHES has benefited from experiences with previous cycles, resulting in improvements to the survey procedures and content. Thus, while the survey affords the opportunity for tracking phenomena across time, it is also dynamic in addressing new issues and including conceptual and methodological refinements.

A new design feature implemented in the NHES:96 is the collection of demographic and educational information on members of all screened households, rather than just those households potentially eligible for a topical component. In addition, this expanded screening feature included a brief set of questions on an issue of interest to education program administrators or policymakers. The total Screener sample size was sufficient to produce state estimates of household characteristics for the NHES:96.

The NHES was conducted in 1991, 1993, 1995, and 1996. Topics addressed by the NHES:91 were early childhood education and adult education. The NHES:93 collected information about school readiness and school safety and discipline. The 1991 components were repeated for the NHES:95, addressing early childhood program participation and adult education. Both components underwent substantial redesign to incorporate new issues and develop new measurement approaches. In the NHES:96, the topical components were parent/family involvement in education (PFI) and civic involvement (CI). The NHES:96 expanded Screener included a set of questions on public library use.

The experiment discussed in this report was conducted in preparation for the NHES:96 full scale survey. Although most of the issues raised are pertinent to RDD surveys in general, some of the specific features of the NHES:96 such as the Parent PFI/CI and Youth CI interviews, and the public library questions included in the expanded screener are mentioned. Readers interested in more detail on the topics covered in the NHES:96 can refer to Collins et al. (forthcoming).

In addition to its topical components, the NHES system has also included a number of methodological investigations. These have resulted in technical reports and working papers covering diverse topics such as telephone undercoverage bias, proxy reporting, and sampling methods. This series of technical reports and working papers provides valuable information on ways of improving the NHES. The present research reflects a continuation of this concern for methodological issues by evaluating factors associated with response rates in RDD surveys and the resources associated with selected approaches.

Rationale for an Experiment in Screening

As noted above, the idea of conducting an experiment in the NHES on factors associated with Screener response rates was precipitated in part by a lower than expected screening response rate in the NHES:95. While the NHES:93 response rate at the screening stage was 82 percent (Brick et al. 1994), the NHES:95 screening response rate was 73 percent (Collins et al. 1996). As mentioned above, the topics addressed in the surveys were different, but both survey administrations were related to educational issues and the topics covered were not expected to be associated with the screening response rates.

A key design difference between the 1993 and 1995 surveys was the screening method. In the 1993 survey, only the 30 percent of households with at least one person age 18 or younger or in 12th grade or below were enumerated in the Screener. A screen-out question was asked in the Screener and households without any potentially eligible members were eliminated without enumerating all the household members. In the 1995 survey, however, every household was potentially eligible for an extended interview and all the members of every household were enumerated in the Screener. It was suspected that this full enumeration of all households was a major factor in the difference in response rates.

When it was clear that the Screener response rate in the NHES:95 was going to be much lower than planned, letters were mailed to nonresponding households, except those designated as "language problems." The addresses were obtained from a commercial service and fewer than half of the telephone numbers could be matched to valid addresses of households. Since addresses were not available for all telephone numbers, the letter was mailed only to those households for which addresses were obtained. The results of this NHES:95 nonresponse mailing showed that those who were mailed letters responded at a much higher rate than those who were not sent letters. This raised the question as to the potential effectiveness of an advance mailing to an RDD sample.

The variation in response rates for RDD surveys of households is well documented, but not well understood. Some RDD surveys obtain response rates of 50 percent or less while others have response rates of 80 percent or more (Groves and Kahn 1979; Thornberry and Poe 1982; Friedrichs 1987; Alexander et al. 1986; Salmon and Nicholls 1983; Hagan and Collier 1983). The variation in telephone survey response rates is associated with factors including the content of the survey, sponsorship, the length of the interview, and data collection procedures such as callback protocols and refusal conversion efforts (Groves and Lyberg 1988). However, it is difficult to estimate the relative effects of specific aspects of surveys because these aspects vary concurrently and there are no definitive experiments on the impact of these factors on response rates. As a result of this uncertainty, an experiment involving some factors that were feasible in the NHES was thought to have value. This research provides the opportunity to test the effects of certain experimental conditions while holding constant the survey content, timing, interviewer training, and calling protocol.

Respondent Selection

Much of the literature on response rates and screening methods in RDD surveys focuses primarily on procedures used to sample adult household members and the relative benefits and drawbacks of various procedures. This literature examines alternatives to a full enumeration approach like the Kish method of respondent selection, which is similar to the method used in the NHES:95. The Kish method involves the enumeration of all adult household members by age and sex at the start of the screener or interview (Kish 1949). Because of concerns about the intrusiveness of collecting such detailed household information early in an interview and the amount of time required to conduct the enumeration, there has been concern that the Kish method has a depressive effect on response rates (Lavrakas et al. 1993; Forsman 1993; Oldendick et al. 1988). A number of alternative procedures for selecting adult respondents within households have been developed and compared to the Kish method.

The Troldahl-Carter method (Troldahl and Carter 1964) involves ascertaining the number of adult household members and using an alternating procedure to select the oldest male, oldest female, youngest male, or youngest female. Another method that has been used increasingly in recent years is the "last birthday" (or sometimes "next birthday") method (Lavrakas et al. 1993). Under this procedure, the screener respondent is asked to identify the adult age 18 or older in the household who has most recently had a birthday (or will be the next to have a birthday). It is necessary to ascertain the total number of adults in the household for appropriate weighting.

Much of the research literature on RDD screening focuses on differences in rates of refusal in studies that manipulate the method of respondent selection (Oldendick et al. 1988; Salmon and Nicholls 1983; Hagan and Collier 1983; Czaja et al. 1982) or the placement of the enumeration within an instrument (Bercini and Massey 1979; Alexander et al. 1986). The results of these studies are somewhat mixed, and it is not clearly demonstrated that the alternatives to enumeration methods provide uniformly higher response rates (Czaja et al. 1982; Oldendick et al. 1988; O'Rourke and Blair 1983). In addition, these methods of respondent selection may also have an impact on other features of the sample such as population coverage and inappropriate respondent self-selection (Bryant 1975; Carr and Hertvik 1993; Hagan and Collier 1983; Lavrakas et al. 1993; Romuald and Haggard 1994).

In general, this literature focuses almost exclusively on methods of sampling one random adult within households. The sampling of children as a unit of analysis is seldom, if ever, addressed. When children are sampled or there is the potential to sample more than one person in a household for a survey, as in the NHES, enumeration becomes an essential design element. In each of the four full-scale NHES collections conducted to date, households with children could contain one or more eligible members, and in two of the collections, adults were sampled based on data collected in the Screener. The enumeration of households members in these situations may be needed so that information required for sampling household members can be collected in an unambiguous way. Similarly, when it is likely that all, or nearly all, households include at least one person eligible for a study, the full enumeration of all households may be important. However, when the population of interest is found in a relatively small fraction of households, a preliminary screen-out question may be used prior to enumeration to eliminate those households without any eligible members. Such eligibility criteria can be based on age or on other characteristics that can be reliably reported by an adult household member responding to a Screener.

Mailings to Respondents

The literature on advance mailings to respondents in RDD surveys is quite sparse. It is likely that little has been done in this area because of the limited proportion of an RDD sample for which addresses can be obtained and the costs associated with the mailings. Camburn et al. (1995) report the results of an advance mailing for a national RDD survey about children's immunization. They found that mailing an advance letter in an RDD survey can lower the rate of refusal and improve overall response rates. No other pertinent work on advance letters for RDD surveys was located in the literature.

Design of the Experiment

Based upon information available in the extant literature and on experiences with previous NHES data collections, particularly the NHES:95, an experiment was developed and implemented as a part of a field test for the NHES:96. This research provided the opportunity to test the effects of the experimental conditions while holding constant the survey content, timing, interviewer training, and calling protocol. The experiment tested the effects of 1) screening out ineligible households before enumerating all household members and 2) sending respondents a letter about the survey prior to interviewer telephone contact. The field test sample was partitioned into four equal samples to examine the effects of four conditions:

- No advance letter, no screen-out question;
- No advance letter, screen-out question;
- Advance letter, no screen-out question; and
- Advance letter, screen-out question.

The screen-out question used in this experiment asked the Screener respondent whether any of the people who normally lived in the household were age 20 or younger. If no one in the household was age 20 or younger, the Screener ended at this point. In households with members in the target age range, household enumeration was conducted. A copy of the questions in the Screener is given in appendix A. The box at the

bottom of the first page of the instrument shows that the screen-out interview ended if no members were in the eligible age range. If there were eligible household members or the household was part of the no screen-out sample, the interview continued in exactly the same way for both samples. The last part of the Screener contains the public library use questions.

The advance letter used in the experiment identified the U.S. Department of Education as the sponsor of the survey, provided an overview of the purpose and content of the survey, stated the average amount of time required to complete interviews, and stressed the importance of participation while emphasizing that participation was voluntary. A page of commonly asked questions about the survey was also included. A copy of the advance letter and the other attachment are given in appendix B. These were mailed first class in a standard envelope with permit postage paid by the U.S. Department of Education. The letters were mailed approximately one week prior to beginning data collection.

One hypothesis addressed in the experiment was that the lower than expected response rate observed in the NHES:95 was related to the full enumeration of all households even if no person in the household was selected for an extended interview. In the NHES:93, only households with children age 18 or younger or in 12th grade or below were fully enumerated. In the NHES:91, only households with children or those sampled for Adult Education (AE) component screening were enumerated, and only persons in the eligible age ranges (2 to 9; 16 or older) were enumerated. In each of these earlier studies, the interviewers could usually complete the interview quickly for households with no children, and this might have been used to encourage respondents to continue the interview, since it only involved answering a few items. This speculation led to the introduction of the screen-out part of the experiment for the field test.

A second hypothesis was that the advance mailing would improve response rates. This was suggested primarily by experience with a nonrespondent mailing in the NHES:95, discussed above. Since the NHES:95 experience was not an experiment (obtaining an address and response propensity were confounded), the results were not conclusive. However, the NHES:95 experience strongly suggested that mailing a letter to respondents might be effective.

In addition to these major hypotheses, several other results of the experiment were investigated to determine the consequences of surveying under the different conditions. One outcome measure studied was the percentage of households with children eligible for the Parent PFI/CI interview. A household was eligible if it had any member from age 3 through 12th grade and up to 20 years old (that is, preschoolers age 3 and older and children enrolled in grades K through 12, up to a maximum age of 20). The percentages of households eligible for the Parent PFI/CI interview under the different conditions can be compared to estimates from other sources and serve as a rough indicator of the quality of the screening.

Another aspect of the experiment examined is the resources required to conduct the interviews under the different conditions. The no screen-out interview is clearly longer for households with no members eligible for an extended interview because it contains more questions than the screen-out interview. However, these additional questions were added to increase the utility of the Screener. In the screen-out option, the Screener only serves to determine eligibility for the interview and to sample members for the extended interview components. In the no screen-out interview, the Screener is also used to obtain data on households for making national estimates. For example, in the NHES:96 the Screener was used to make national estimates of household public library use.

A list-assisted sample of 10,001 telephone numbers was selected from the Genesys sampling frame used in the NHES in 1995 and 1996. The sample was systematically divided into two half-samples; one of the two halves was made available for interviewers at Westat's Rockville, Maryland Telephone Research Center (TRC) and

the other was made available to interviewers at Westat's Frederick, Maryland TRC.

Screen-out condition. The screen-out question was included in the interviews conducted at the Frederick TRC, while all households were enumerated at the Rockville TRC. The screen-out question was restricted to one facility rather than assigning interviewers at both facilities to test this experimental condition in order to eliminate the contamination that might have occurred if interviewers at the same facility talked to one another about the study. The interviewers at the facilities were not informed that a different version of the interview was being tested at the other site.

Although this design eliminated the contamination between interviewers, it had the negative consequence of confounding the facility with the screen-out condition. Before this design was considered, the NHES:95 initial cooperation rates (defined in the next section) in the two facilities were compared and found to be nearly identical (60 and 61 percent). Westat strives to ensure there is no "facility effect" in their telephone centers by using standard training and supervision methods and monitoring the outcomes by center.

Advance letter. For the advance letter component of the experiment, all 10,001 telephone numbers were sent to Telematch, a commercial firm that matches telephone numbers to addresses. Rather than mail to all the addresses found, a random sample of half of the numbers assigned to each facility was selected and the advance letter was mailed only to the addresses obtained for those in the selected half-samples. Letters were sent via first class mail.

Table 1 summarizes the design of the experiment and shows the number of telephone numbers assigned to each experimental condition, along with the results of sending the numbers to Telematch. Across all experimental conditions, advance letters could have been mailed to 33 percent of the telephone numbers (3,348 of 10,001), but under some experimental conditions, no letters were mailed. Of the 1,684 letters mailed, 184 (10.9 percent) were returned by the post office as undeliverable. Note that having an address associated with a telephone number does not necessarily mean that the correct household received the letter. Postmaster returns are accounted for in the analysis presented in this report, but it is likely that some additional letters were neither received by the households with the sampled telephone numbers nor returned.

Data Collection Procedures

The last step in the design was to select interviewers to conduct the interviews. Interviewers with experience working with the NHES:95 were selected in both facilities. Westat's telephone center management then examined the cooperation and refusal conversion rates of each of the interviewers from the NHES:95 to ensure that the interviewers in both facilities were comparable and that the selected interviews did not have unusually high rates. Twenty to 25 interviewers were trained at each telephone center. Following the training, the interviewing began.

The sample of telephone numbers was sorted into random order and then released for work according to a standard call-scheduling protocol. This protocol required that at least seven attempts be made to contact a sampled telephone number and complete a Screener, with additional calls allocated to any extended interviews in the household. The calls were staggered at different times of the day and week, with two daytime weekday calls, two weekday evening calls, and two weekend calls on separate weekends. Initial refusal cases were held for a period of 13 days, at which time specially trained refusal conversion interviewers attempts to convert these cases. Unlike full-scale NHES surveys, no interviewing was done in Spanish for this experiment. The data collection procedures were identical in the two facilities. For example, if an interviewer reached an answering machine when a number was dialed, the call outcome was recorded and

Table 1.—Number of telephone numbers, by screen-out question and advance letter

Experimental condition	Number	Percent
Total	10,001	100.0
Screen-out question		
Total	5,001	50.0
Sampled for advance mail	2,501	25.0
No mailable address	1,661	16.6
Mailable address	840	8.4
Mailed, returned	90	0.9
Mailed, not returned	750	7.5
Not sampled for advance mail	2,500	25.0
No mailable address	1,640	16.4
Mailable address	860	8.6
No screen-out question		
Total	5,000	50.0
Sampled for advance mail	2,500	25.0
No mailable address	1,656	16.6
Mailable address	844	8.4
Mailed, returned	94	0.9
Mailed, not returned	750	7.5
Not sampled for advance mail	2,500	25.0
No mailable address	1,696	17.0
Mailable address	804	8.0

NOTE: This table reflects the design of the field test experiment. As discussed in the text, 350 telephone numbers were removed from each half sample after the experiment began. The final sample numbers appear in table 2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), field test of the 1996 survey.

no messages were left on the machine by the interviewers in either facility. The data collection period for the experiment lasted 5 weeks

As the data collection continued, the number of completed interviews was monitored. After it was determined that most of the field test goals for the number of completed extended interviews of various types were being accomplished, it was decided to eliminate 350 of the telephone numbers in each facility that had not yet been worked at all. Since the sample was sorted randomly, this reduction in the sample was done very quickly without risk of bias.

Table 2 gives the results of calling the telephone numbers by interviewing facility. This table provides some detailed information on the results of the call attempts. The counts for numbers that were not residential show the telephone numbers in the two facilities were very similar. The percentage of telephone numbers that were not residential in the two facilities were

approximately equal (51 percent in the Frederick faculty and 52 percent in Rockville).

Furthermore, the distributions of not residential numbers by type (not working, business, and not ascertained) were also very similar. The completion and nonresponse outcomes are discussed in more detail in the Findings section.

Outcome Measures

Before discussing the results from the experiment, some terms are introduced that are needed in the evaluation of the experiment. The three types of measures used to evaluate the field test experiment are 1) cooperation, conversion, and response rates; 2) eligibility rates; and 3) resources expended to complete the interviews. Generally speaking, higher cooperation rates are the single most important evaluation criterion. Eligibility rates are an important consideration because they are one indicator of the extent of possible nonresponse bias in a survey. Resource measures reflect the cost associated with obtaining completed interviews; it is incumbent upon study designers to evaluate the effort required to achieve desired response rates and the resources required to support those efforts.

Three cooperation rates and two response rates are examined in this experiment. The most important cooperation rate in the NHES is the *Screener initial cooperation rate*. When a household is contacted initially, the result can be either a completed screening interview, a refusal, or another result (such as a language problem or a temporary outcome like an appointment to call later). The initial contact with the household may be preceded by several call attempts that do not result in speaking to a person, such as a ring with no answer or an answering machine result. The initial cooperation rate is the ratio of the number of initially completed interviews (C) to the number of interviews that are initially either refused (R) or completed (C); thus, the rate is calculated as [C/(R+C)]. In some cases, the respondent neither refuses nor completes the interview, and a temporary outcome, such as an appointment to call later, is generated. These results are only included in the cooperation rate once they become either completes (C) or initial refusals (R).

The *Screener refusal conversion rate* is a second cooperation rate used in this study. If a Screener interview is initially refused, an attempt to convert the refusal into a completed interview is tried some time later. The refusal conversion rate is the ratio of the number of these cases that are completed during refusal conversion (C_2) to the total number of interviews that were either refused a second time (R_2) or completed (C_2); thus the ratio is calculated as $[C_2/(R_2 + C_2)]$. As noted below, only one refusal conversion was attempted in this experiment. However, this attempt might have required several telephone calls to contact the household. Other outcomes such as "maximum calls," business, language problems, and nonworking numbers are not used in the computation. Hostile refusals, for which no conversion efforts were made, were also excluded from calculation of the conversion rate.

The third type of cooperation rate discussed in this analysis is the *extended interview cooperation rate*; the extended interviews are those conducted with sampled persons or parent respondents with sampled children within the screened households. Thus, it includes interviews sampled within households with completed Screeners. This rate is the ratio of the number of completed extended interviews (C_E) to the number of interviews that are refused (R_E) or completed (C_E); thus, the rate is calculated as $[C_E/(R_E + C_E)]$. If a sampled child was not at least 3 years old or under 21 and enrolled in 12th grade or less, the child was ineligible for the interview; these children are excluded from the computation of this rate. Outcomes such as "maximum calls," language problems, and nonworking numbers are also excluded from this rate. No attempts were made to convert the extended interviews that were initially refused during this experiment.[1]

[1] NHES field tests typically do not include refusal conversion attempts. Such attempts were made at the Screener level for this experiment, but not at the extended interview level.

Table 2.—Number of telephone numbers dialed, by final Screener response category and screen-out question

Screener response category	Screen-out question (Frederick)		No screen-out question (Rockville)	
	Number	Percent	Number	Percent
Total	4,651	100.0	4,650	100.0
Complete	1,721	37.0	1,381	29.7
Complete, no extended interview	1,213	26.1	877	18.9
Complete, Parent PFI/CI interview only	226	4.9	238	5.1
Complete, Parent PFI/CI and Youth CI interviews	282	6.1	266	5.7
Not residential	2,357	50.7	2,417	52.0
Not working	1,405	30.2	1,459	31.4
Business	553	11.9	540	11.6
Not ascertained	399	8.6	418	9.0
Nonresponses, finalized	430	9.2	559	12.0
Language problem	29	0.6	37	0.8
Maximum call	115	2.5	130	2.8
Refusal	284	6.1	377	8.1
Other nonresponse	2	0.0	15	0.3
Nonresponse, not finalized	143	3.1	293	6.3
Language problem	10	0.2	25	0.5
Maximum call	47	1.0	197	4.2
Refusal	86	1.8	71	1.5

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), field test of the 1996 survey.

Exhibit 1.—Definitions of Screener results for calculation of outcome measures

Result	Definition
C	Completed Screener with no initial refusal
R	Initial Screener refusal
C_2	Screener completed in refusal conversion
R_2	Screener refused again in refusal conversion
C_E	Completed extended interview
R_E	Refused extended interview

An overall or *gross Screener response rate* is also used to evaluate some of the results from the experiment. The gross response rate is the ratio of the number of completed interviews to the number of known residential numbers. While the gross response rate is used in most NHES studies, the field test gross response rate is not very indicative of the expected Screener response rate for a full-scale NHES for several reasons. In a full-scale NHES, data are collected over a longer period of time and this generally increases the percentage of households that are contacted and the response rate. A full scale study would also include interviews conducted in Spanish to help reduce the percentage of language problem cases. Furthermore, the call scheduling protocol used in the field test would be replaced by more extensive dialings to telephone numbers that could not be interviewed and refusal conversion would be attempted for some cases a second time. The use of these more intensive methods in a full scale study, a standard for the NHES, reduces the number of unresolved numbers and increases the gross Screener response rate. Despite the shortcomings of this measure, the gross Screener response rate is used in a limited way to compare the results across experimental conditions.

Because the gross Screener response rate for the experiment is not very useful for predicting the actual response rate in a full scale study, an alternative, called the *predicted Screener response rate*, is introduced. The predicted Screener response rate is the initial cooperation rate for the Screener multiplied by one minus the Screener refusal conversion rate. Let i be the initial cooperation rate for the Screener and let r be the refusal conversion rate for the Screener, then the predicted response rate is $100\{i+(1-i)*r\}$ percent.

For example, in the NHES:93 the initial cooperation rate was 69.7 percent and the refusal conversion rate was 45 percent, so the predicted Screener response rate was 83.3 percent (100*{.697+(1-.697)*.45}=83.3%). The actual Screener response rate in the NHES:93 was 82.1 percent. For the NHES:95, the predicted Screener response rate was 74.2 percent (100*{.61+(1-.61)*.339}= 74.2%) and the actual Screener response rate was 73.3 percent. In both cases the predicted Screener response rate is about 1 percent higher than the actual rate. Thus, the predicted response rate provides a reasonable predicted value using only initial cooperation and refusal conversion rates. This rate is particularly useful because the initial cooperation and refusal conversion rates do not depend on the calling protocol (number of call attempts, maximum number of attempts, number of times refusal conversions are attempted, etc.), and the calling protocol for the experiment differs from the standard NHES protocol. The predicted Screener response rate is robust to these differences in protocols.

The *eligibility rate* can be another useful statistic in assessing the survey outcome. The eligibility rate is the percentage of the respondents who are the target of the survey. For example, if the goal is to conduct interviews with parents about children and youth age 3 through 12th grade, then the eligibility rate is the percent of households with children in this population. Examining the eligibility rate is a means of assessing the extent to which the cooperating respondents reflect the population on the key characteristic that determines eligibility for the study. Significant deviation of this rate from known population parameters suggests nonresponse bias at the screening level.

The measures of resources that are used to evaluate the experiment are the number of telephone calls, the length of the Screener interview, and the number of air time interviewer hours. The *length of the interview* is the administration time for the interview. It begins when the respondent answers the telephone and ends when the screener is completed. The *air time* is the amount of time used to make the calls, get the respondent on the telephone, conduct the interview, and code the result of the call; it includes both those attempts resulting in contact and those not resulting in contact. These measures are provided at the Telephone Research Center level so that they can be used to compare the screen-out question condition of the experiment but not the advance letter factor.

Table 3.—Number of Screener, Screener refusal conversion, and extended interview cases, by cooperation rates, screen-out question, and advance letter

Experimental condition	Screener*			Screener refusal conversion			Extended interview			
	Complete	Refusal	Cooperation rate	Complete	Refusal	Conversion rate	Complete	Ineligible	Refusal	Cooperation rate
Screen-out/letter	802	272	74.7%	67	144	31.8%	342	6	17	95.3%
Screen-out/no letter	769	269	74.1	83	135	38.1	284	10	23	92.7
No screen-out/letter	671	348	65.8	71	179	28.4	299	9	21	93.6
No screen-out/no letter	572	387	59.6	67	196	25.5	255	11	15	94.7
Screen-out	1,571	541	74.4	150	279	35.0	626	16	40	94.1
No screen-out	1,243	735	62.8	138	375	26.9	554	20	36	94.1
Letter	1,473	620	70.4	138	323	29.9	641	15	38	94.5
No letter	1,341	656	67.2	150	331	31.2	539	21	38	93.6

*At this stage, refusal conversion attempts are not included.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), field test of the 1996 survey.

The costs of sending an advance letter are dependent on a number of factors that may vary from one survey to the next. In this study, Telematch charged $0.05 for each address found for a telephone number rather than charging per telephone number searched. Other types of arrangements with commercial firms who do these services might be arranged, especially for large volume mailings.

Other components of resources are the costs for printing the advance letter, printing the envelopes, preparing the mailing, and postage. In this study, a simple letter was prepared (see appendix B) and the postage was paid by the U.S. Department of Education. As with the methods for obtaining addresses, different arrangements for conducting the mailing, such as using a company that specializes in these activities, or using regular stamps rather than government permit, and a different number of mailings could result in overall costs varying substantially. Because of these variations, the focus in the next section is on resources used in the interviewing rather than the mailing. These are also clearly the predominant expenditures in this type of survey.

Findings

The findings of the experiment as they relate to the screening cooperation, conversion, and response rates, eligibility rates, and survey resources requirements are presented below.

Cooperation, Conversion, and Response Rates

Table 3 shows the number of Screener cases prior to refusal conversion, Screener refusal conversion cases, and extended interview cases for each of the four experimental conditions, as well as aggregates for each of the two conditions. The cooperation rates are computed using the methods described above.

As noted above, the initial cooperation rates are the most important in any RDD survey, and the differences in these rates between the experimental conditions are obvious. The initial Screener cooperation rates for the screen-out conditions are much higher than for the no screen-out condition.

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Table 4 presents the cooperation rates and their standard errors. It also gives the t-value for each combination of experimental conditions, where the t-value is the ratio of the rate to its standard error. The t-values in bold are statistically significant at the 95% confidence level after controlling for the multiple tests being performed (Bonferroni adjustment with family size 7).

For the Screener initial cooperation rates, the results are striking. The difference in rates between the screen-out and no screen-out conditions is 11.5 percent (e-f). The screen-out condition is the dominant factor for determining the level of the initial cooperation rate for the Screener in this experiment. The difference in the initial Screener cooperation rate due to the advance letter is 3.2 percent (g-h), but this difference is significant only for those interviews conducted with the no screen-out question (c-d). The screen-out question leads to a substantially higher initial cooperation rate. If no screen-out question is included, then the advance letter increases the initial cooperation rate (c-d), but not to the same level attained by using the screen-out question (a-c).

Table 4.—Differences in cooperation rates, by screen-out question and advance letter

Experimental condition	Screener cooperation*			Screener refusal conversion			Extended interview		
	Rate	s.e.	t-value	Rate	s.e.	t-value	Rate	s.e.	t-value
(a) Screen-out/letter	74.7%	1.3		31.8%	3.2		95.3%	1.1	
(b) Screen-out/no letter	74.1	1.4		38.1	3.3		92.7	1.5	
(c) No screen-out/letter	65.8	1.5		28.4	2.9		93.6	1.3	
(d) No screen-out/no letter	59.6	1.6		25.5	2.7		94.7	1.3	
Difference (a)-(b)	0.6	1.9	0.3	-6.3	4.6	-1.4	2.6	1.8	1.4
Difference (a)-(c)	8.8	2.0	**4.4**	3.4	4.3	0.8	1.7	1.7	1.0
Difference (a)-(d)	15.0	2.1	**7.3**	6.3	4.2	1.5	0.7	1.7	0.4
Difference (b)-(d)	14.4	2.1	**6.9**	12.6	4.2	**3.0**	-1.9	2.0	-1.0
Difference (c)-(d)	6.2	2.2	**2.9**	2.9	3.9	0.7	-1.0	1.9	-0.5
(e) Screen-out	74.4	0.9		35.0	2.3		94.1	0.9	
(f) No screen-out	62.8	1.1		26.9	2.0		94.1	1.0	
Difference (e)-(f)	11.5	1.4	**8.0**	8.1	3.0	**2.7**	0.0	1.3	0.0
(g) Letter	70.4	1.0		29.9	2.1		94.5	0.9	
(h) No letter	67.2	1.1		31.2	2.1		93.6	1.0	
Difference (g)-(h)	3.2	1.4	2.2	-1.3	3.0	-0.4	0.9	1.3	0.7

*At this stage, refusal conversion attempts are not included.

NOTE: t-values equal to or greater that 2.7 are significant at the 95 percent confidence level. Calculations of differences are based on unrounded data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), field test of the 1996 survey.

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In addition to the differences in the cooperation rates, a substantial difference was observed between the screen-out and no screen-out conditions in the numbers of nonfinalized maximum call cases (see table 2). While only 47 cases were in this status in the screen-out condition, there were 197 such cases in the no screen-out condition. This may be a function of the relative ease of completing the Screener with ineligible households in the screen-out condition compared to the no screen-out condition. Another factor may be that some maximum call cases are hidden refusals. In the NHES:95, 41 percent of maximum call cases that were refielded for additional attempts were finalized as refusals (Collins et al. 1997). The greater incidence of maximum call cases in the no screen-out condition, is consistent with higher rate of refusal for that condition.

For the Screener refusal conversion rates, only two of the differences are statistically significant. The screen-out question not only results in a higher Screener initial cooperation rate, but it also has the desirable feature of resulting in a higher refusal conversion rate. The increase of 8.1 percent is large enough to be of substantive importance. It is worth noting that most of the difference in refusal conversion rates in the screen-out question occurs when no advance letter is mailed.

No statistically significant differences were observed for the extended interview initial cooperation rates. All of these rates were uniformly high.

A goal of the experiment was to examine the probable Screener response rate under these different experimental conditions. The predicted Screener response rate shows this better than any other single measure, although the rates are about 1 percent higher than the actual response rates. This rate represents the expected Screener response rate under the full NHES data collection protocol; it is discussed further on page 10. Table 5 shows the predicted Screener response rates for each of the experimental conditions. The predicted Screener response rates using the screen-out question are about 82 to 84 percent, while enumerating all households gives predicted Screener response rates in the range of 70 to 75 percent. The gross Screener response rate can be used to measure the difference in response rates by whether or not an advance letter was actually

Table 5.—Predicted Screener response rate, by screen-out question and advance letter

Experimental condition	Number of telephone numbers	Initial cooperation rate	Refusal conversion rate	Predicted response rate
Screen-out/letter	2,326	74.7%	31.8%	82.7%
Screen-out/no letter	2,325	74.1	38.1	84.0
No screen-out/letter	2,325	65.8	28.4	75.5
No screen-out/no letter	2,325	59.6	25.5	69.9
Screen-out	4,651	74.4	35.0	83.3
No screen-out	4,650	62.8	26.9	72.8
Letter	4,651	70.4	29.9	79.2
No letter	4,650	67.2	31.2	77.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), field test of the 1996 survey

mailed to a household. The gross Screener response rate, as noted earlier, is the ratio of the number of completed interviews to the number of residential numbers. This rate is the only one used for examining the detailed results because the other rates, especially the predicted rate, become more unstable when based on fewer cases. For the purpose of examining the impact that mailing the letter has on the Screener response rate, the gross Screener response rate is used. As noted earlier, the fact that a letter was mailed does not mean that it was delivered to any household, that it was delivered to the correct household, or that the Screener respondent ever saw the letter. Interviewers were aware that the mailing to some households was conducted, but had no information about whether specific households had been sent a letter. The information available is whether or not the advance letter was mailed and, if so, whether it was returned by the postmaster as undeliverable. The postmaster returns are only available for those advance letters that were in the part of the experiment in which the letters were actually mailed.

Table 6 presents the number of households and the gross Screener response rates by the various experimental conditions. The gross Screener response rate shows the large difference in response rates associated with the use of the screen-out question, as did the cooperation and conversion rate measures discussed above. Under the screen-out condition, no significant difference in Screener response rates is observed between households who were and were not sampled for mailing (74.8 and 75.3 respectively). The comparison of these rates examines whether there is an improvement in response rates when an advance mailing is part of the data collection protocol, and not whether households with mailable addresses respond at different rates regardless of whether a letter is sent. The latter question is of less interest, but is discussed below. Under the no screen-out condition, those who were sampled for mailing had a 5.9 percent higher Screener response rate (64.7 percent) than those who were not sampled for mailing (58.8 percent). These findings suggest that the advance mailing may help to increase Screener response rates under a no screen-out design, but not under a screen-out design.

Although the main issue is the effect of doing an advance mailing, it is interesting to examine the difference in Screener response rates for those with mailable addresses under the two conditions. Under the screen-out conditions, the difference between the gross Screener response rates for those sampled for the advance letter with a mailable address (79.5 percent) and those not sampled for the advance letter with a mailable address (78.0 percent) was only 1.5 percent ($t = 0.7$). Under the no screen-out condition the difference between the two groups was significant at 7.4 percent ($t = 2.7$). Thus, there appears to be an interaction between the two experimental conditions and the effect of the mailing is different depending on the use of the screen-out item.

The lower Screener response rates associated with the no screen-out approach raise the important question of the source of the loss in response. As noted previously, the literature generally regards enumeration as more invasive than other respondent selection approaches. However, data collection experience on the NHES indicates that most refusals occur prior to the enumeration matrix (Brick et al., forthcoming). Some researchers (Bercini and Massey 1979) have suggested that the lower response rates may be related to the interviewers' perception of the task. Specifically, Bercini and Massey reported that collecting household members' names had a "direct negative effect on interviewer performance." The findings of this experiment are consistent with that hypotheses and are further supported by the fact that most refusals occur prior to enumeration, and cannot be attributed to respondent reaction to the enumeration (Brick at al. 1997). Following this screening experiment, efforts were made in the NHES:96 interviewer training to emphasize that only a brief interview (screening questions, personal characteristics, and library use questions) was to be conducted in most households. However, the NHES:96 Screener response rate was at the lower end of the range

Table 6.—Number of households and gross Screener response rate, by screen-out question and advance letter

Experimental condition	Number of households	Gross response rate	t-value
Total	4,527	68.5	
No mailable address	1,965	64.5	
Mailable address	2,562	71.6	
Screen-out question			
Total	2,294	75.0	
(a) Sampled for advance mail	1,162	74.8	
No mailable address	527	69.1	
(b) Mailable address	635	79.5	
Mailed, returned	52	76.9	
Mailed, not returned	583	79.8	
(c) Not sampled for advance mail	1,132	75.3	
No mailable address	463	71.3	
(d) Mailable address	669	78.0	
Difference (a) - (c)		-0.5	-0.3
Difference (b) - (d)		1.5	0.7
No screen-out question			
Total	2,233	61.8	
(e) Sampled for advance mail	1,147	64.7	
No mailable address	499	60.7	
(f) Mailable address	648	67.7	
Mailed, returned	52	65.4	
Mailed, not returned	596	68.0	
(g) Not sampled for advance mail	1,086	58.8	
No mailable address	476	56.9	
(h) Mailable address	610	60.3	
Difference (e) - (g)		5.9	**2.9**
Difference (f) - (h)		7.4	**2.7**

NOTE: t-values equal to or greater that 2.7 are significant at the 95 percent confidence level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), field test of the 1996 survey.

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expected for a no screen-out approach with an advance mailing (the NHES:96 Screener response rate was 70 percent). Thus it appears that direct experience with conducting a given survey shapes the interviewers' perception of the ease or difficulty of the task, which in turn has an effect on response rates.

Eligibility Rates

As stated earlier, differences in eligibility rates could indicate potential response problems. Based on the October 1992 CPS (the most recent October CPS file available at the time of the initial NHES:96 sample design), the percentage of households eligible for the NHES:96 was estimated to be 30.4 percent. The percentage of households eligible for the NHES:96 based on the completed Screener interviews using the screen-out question was 29.5 percent (508 households out of 1,721 completed Screeners), within 1 percent of the CPS estimate. The percentage in the numbers assigned to the interviews with no screen-out question was 36.5 percent (504 households out of 1,381 completed Screeners), about 6 percent higher than the CPS estimate. *(t=2.52)*. This result initially led to speculation about potential nonresponse biases due to differential response rates by whether or not there were any children in the household. However, further examination of the estimates from the CPS reduced the concern, because the CPS estimates were found to vary over time. The estimated percentage of households with eligible children from the October 1992 CPS was 30 percent, while the October 1993 CPS estimate was 33 percent and the October 1994 CPS estimate was 38 percent. Since the eligibility rates under the two experimental conditions were within the range of the CPS for the three years, it is difficult to determine which of the experimental rates is closer to the population value.

The difference in the eligibility rates by experimental condition may be less problematic than they first appeared for another reason. Brick and Broene (forthcoming) found that the calling procedures used in the full scale NHES surveys to increase response rates (e.g., second refusal conversion attempts, additional attempts to contact households that did not respond in the first 7 callings) virtually eliminated the eligibility differences that could be measured. Specifically, comparisons of the characteristics of households from the NHES:95 and from the Current Population Survey revealed relatively few differences in characteristics associated with eligibility, and the observed differences were generally quite small. Exceptions were 1-person households (for which the NHES:95 estimate was 2.1 percent less than the CPS estimate) and households with at least one adult aged 65 or older (2.7 percent less than the CPS). Thus, the statistically significant eligibility rates found in the experiment would probably be reduced if the standard NHES calling procedures were used.

Resources

The other part of this evaluation is the consideration of three measures of resources expended to conduct the surveys: 1) the number of telephone calls made, 2) the length of the interview, and 3) the air time required. As noted earlier, these measures are provided at the facility level so that differences between the screen-out question and the full enumeration can be evaluated. The difference due to the advance letter cannot be examined, but this is only a minor restriction since the advance letter was not expected to reduce the length of the interview. The advance letter could have an impact on reducing the number of calls needed to finalize a case and this can be evaluated.

The mean number of telephone calls per case made in the field test did not differ substantially by the use of the screen-out question. The mean number of calls with the screen-out sample was 2.76 and the average number of calls with no screen-out question was 2.83. The difference is small and of little practical consequence for a survey like the NHES. About 6 percent of the no screen-out interviews were not finalized and only 3 percent of the screen-out interviews were not finalized. It is likely that the mean number of telephone calls required to finalize the cases so that the percentages finalized were equal would have been somewhat greater for the no screen-out

numbers. However, the differences are probably small, because similar results are obtained if the mean number is computed separately for only the completed household screening interviews (2.69 for the screen-out question and 2.73 for no screen-out question).

The average length or administration time of the Screener differed by whether or not the screen-out question was used. The Screener contained questions on the educational and demographic characteristics of household members and items on public library use[2]. These questions were asked in all households in the no screen-out condition, but were only asked in the screen-out condition if there were household members age 20 or younger and the Screener was continued. The mean times for households that were *not* sampled for an extended interview were very different for these two screening conditions. The mean for households not sampled for an extended interview with the screen-out question was 2.1 minutes and for those without the screen-out question the mean was 8.1 minutes (table 7). The very brief time for those without extended interviews in the screen-out condition reflects the fact that most of these households were screened out with only a few questions. While these differences have cost implications, it must be remembered that much of the additional survey administration time is associated with collecting data on the characteristics of households and their members that would not be available for analysis otherwise. The difference in cooperation rates discussed earlier suggests that some of the additional time is required for refusal conversion activities, i.e., persuading persons who initially refused to complete the interview. However, instrument administration time alone is not an appropriate comparison of resources associated with the screening experiment, since more data were collected under the no screen-out condition.

The survey administration time discussed above reflects effort expended on completed cases. Air time reflects interviewing effort for both responses and nonresponses. The total air time was 520 hours in the Telephone Research Center with the screen-out question and 645 hours in the Center without the screen-out question. This difference is primarily due to two factors: the length of the interview for households with no extended interviews (which was reflected in the survey administration time discussed above) and additional time for refusal conversion efforts. The increase is nearly 25 percent above the air time devoted to the telephone numbers that had the screen-out question. Since air time is probably more highly correlated to the total data collection cost of the survey than any other single measure, it is reasonable to speculate that the cost of doing the no screen-out method and collecting the household-level data (demographic, educational, and library items) for all households is about 25 percent greater than the cost of conducting data collection with a screen-out question under these or similar eligibility conditions.

Conclusions

The results of this experiment were definitive. The use of a screen-out question to eliminate ineligible households prior to enumeration results in considerably higher response rates. The cost of interviewing is also about 25 percent lower for this approach if the items included in the expanded screening interview are similar to those used in the NHES:96 and about one-third of all households had members eligible for extended interviews. Some of the additional resources required for the no screen-out condition are associated with the collection of these additional data. However, the cost differential is also associated with the need for a larger refusal conversion effort.

In the wake of the lower than planned response rates from the NHES:95, the screen-out question approach could be used to obtain high response rates in future NHES collections and other surveys in which only a subset of households is eligible for the extended component interviews. Since the advance letter does not increase

[2] The questions on public library use were asked in the Screener if no household members were sampled for an extended interview; if one or more household members were sampled for extended interviews, the public library use questions were asked during the first extended interview in the household.

Table 7.—Administration time of Screeners, by experimental condition and household type

Experimental condition and household type	Number	Time in minutes		
		Mean	Minimum	Maximum
Screen-out question				
No extended interviews	1,213	2.1	0.7	23.4
Parent PFI/CI interview only	226	5.3	2.9	13.2
Parent PFI/CI and Youth CI interviews	282	5.9	2.9	16.0
No screen-out question				
No extended interviews	877	8.1	3.6	35.7
Parent PFI/CI interview only	238	5.6	2.8	24.7
Parent PFI/CI and Youth CI interviews	266	6.5	3.3	15.9

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), field test of the 1996 survey.

response rates when the screen-out approach is used, its use under a screen-out design should not significantly increases response rates. However, a letter might still be useful for refusal or other nonresponse conversion purposes under these conditions.

Despite the advantage of a higher response rate, the screen-out approach is not acceptable if estimates of the characteristics for all households are necessary to meet the goals of the study. The experiment showed that mailing an advance letter was effective in increasing the Screener response rate when the full enumeration of all households was conducted. Thus, the advance mailing should be used in such designs.

Under a full enumeration design, other procedural methods besides the advance mailing should be considered. As noted earlier, some researchers (Bercini and Massey 1979) have suggested that the lower response rates may be related to the interviewers' perceptions of the task. If this is true, then training methods that emphasize the simplicity of the job might improve response rates. For the NHES:96, the no screen-out method was used and only personal and household characteristics and a few library items were collected in the 70 percent of households that did not have extended interviews. The interviewers in the NHES:96 were trained to expect a short interview for these households. Despite this training approach, the Screener response rate for the NHES:96 was 70 percent which is in the lower end of the range predicted based on the results of this experiment. It is likely that interviewer's actual experience in conducting the survey overrides messages conveyed in training about the ease or difficulty of the task. Thus, training may not be adequate to overcome the lower response rates.

Other procedural methods used in the NHES have been shown to improve response under both screen-out and full enumeration designs. These include second refusal conversion attempts and refielding nonresponse cases such as those with maximum numbers of contact attempts and those with only noncontact (e.g., answering machine) results. Extending the data collection period to allow refusals to be held for a longer period prior to attempting conversions and to provide a longer period over which to contact other nonresponse cases may be helpful, but this approach needs to be considered in terms of the attendant costs versus benefits and the time constraints under which the survey must operate.

During the development phase of a survey, it is incumbent upon the researchers to consider the balance between the substantive goals of the study and the response and resource implications

of the designs that could be used to meet those substantive goals. This experiment indicates that the approach to enumeration used in an RDD survey has implications both for the screening response rate and for the resources required to carry out the survey.

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Appendix A:

NHES:96 Field Test Screener

NHES:96 Field Test Screener

SCRN

S1. Hello, this is (INTERVIEWER) and I'm calling about a research study sponsored by the United States Department of Education. Are you a member of this household and at least 18 years old?

HHMEMB18

YES	1	(GO TO S4)
NO	2	(GO TO S2)
PROBABLE BUSINESS	3	(GO TO S4)
GO TO RESULT	GT	

S2. May I please speak with a household member who is at least 18 years old?

SPEAKMEM

AVAILABLE	1	(GO TO S1)
NOT AVAILABLE	2	(GO TO RESULT, CALLBACK APPT.)
THERE ARE NONE	3	(GO TO S3A)
GO TO RESULT	GT	

S3A. May I please speak with the male or female head of this household?

SPEAKHH

PERSON ON PHONE	1	(GO TO S4)
OTHER PERSON, AVAILABLE	2	(GO TO S3B)
OTHER PERSON, NOT AVAILABLE	3	(GO TO RESULT, CALLBACK APPT.)
GO TO RESULT	GT	

S3B. Hello, this is (INTERVIEWER) and I'm calling about a research study sponsored by the United States Department of Education. Are you a head of this household?

HHMEMBHH

YES	1	(GO TO S4)
NO	2	(GO TO S3A)
GO TO RESULT	GT	

S4. Is this phone used for...

SFONEUSE

Home use,	1	(CONTINUE)
Home and business use, or	2	(CONTINUE)
Business use only?	3	(GO TO THANK1)
GO TO RESULT	GT	

For Parent/Youth Interview, read SCRN_20.
For Adult CI Interview, read PRE_LIB.

SCRN_20. The U.S. Department of Education is conducting a voluntary and confidential study about the educational experiences of children and how they learn about their communities and government. We are also interested in how all households use public libraries. Are any of the people who normally live in your household age 20 or younger?

YES.....1 (READ STMT1)
NO.....2 (READ STMT2)
GO TO RESULT.....GT

Split-half 1: If SCRN_20 = 2, then terminate, else continue.
Split-half 2: Continue.

STMT 1. These next questions are about the people in your household and usually take 5 to 7 minutes. (GO TO S6.)

STMT 2. Then I just have a few questions about libraries and about the people in your household. They usually take 5 to 7 minutes. (GO TO LINTRO.)

PRE_LIB. The U.S. Department of Education is conducting a voluntary and confidential study about how people use public libraries and how they learn about their communities and government. These questions usually take 10 to 15 minutes.

First, I'd like to ask about libraries. (GO TO LINTRO.)

PRE_S6. Now I'd like to ask about the people in your household and their education and background.

ENUM

S6. Starting with yourself, please tell me just the first names and ages of all the people who normally live in your household. What is your first name, please?

[HOUSEHOLD MEMBERS INCLUDE PEOPLE WHO THINK OF THIS HOUSEHOLD AS THEIR PRIMARY PLACE OF RESIDENCE. IT INCLUDES PERSONS WHO USUALLY STAY IN THE HOUSEHOLD BUT ARE TEMPORARILY AWAY ON BUSINESS, VACATION, IN A HOSPITAL, OR LIVING AT SCHOOL IN A DORM, FRATERNITY, OR SORORITY.]

What is [your first name/the first name of the next person]?	How old [are you/ is (he/she)]?	Is this person male or female?	SCREENER RESPONDENT
FNAME	***AGE***	***SEX***	***screspx***

S6VERF1. [VERIFY THE NUMBER OF HOUSEHOLD MEMBERS LISTED ON THE MATRIX.] Have we missed anyone else who usually lives here who is temporarily away from home or living in a dorm at school, or any babies or small children?

MATRIX CORRECT.....1
RETURN TO MATRIX.....2
GO TO RESULT.....GT

If AGE >= 3, -7, -8 (person age 3 or older), ask SX7.

SX7. [Are you/Is (PERSON)] attending (or enrolled in) (school/nursery school, kindergarten, or school)?]

SENROLL

YES	1	
NO	2	
REFUSED	-7	
DON'T KNOW	-8	

If AGE >= 18 or -7, -8 (person age 18 or older), autocode SX8 = 2 (not home schooled) and go to box after SX8. Else, if AGE = 5-17, ask SX8. Else, if SX7 = 1 (person is enrolled in school), go to SX9. Else, go to first box after SX12.

SX8. (READ FIRST TIME: Some parents decide to educate their children at home rather than sending them to school.) Is (CHILD) being schooled at home?

SHOMESCH

YES	1	(GO TO SX8A)
NO	2	(GO TO BOX AFTER SX8A)
REFUSED	-7	(GO TO BOX AFTER SX8A)
DON'T KNOW	-8	(GO TO BOX AFTER SX8A)

SX8A. So your child is being schooled at home instead of at school?

SHOMECON

YES	1	(GO TO SX10)
NO	2	(RECODE SX8=2 AND GO TO GO TO BOX)
REFUSED	-7	(RECODE SX8 = -7 AND GO TO BOX)
DON'T KNOW	-8	(RECODE SX8 = -8 AND GO TO BOX)

If SX7 = 1 (person is enrolled in school), go to SX9. Else, go to first box after SX12.

ENUM

SX9. What grade or year of school [are you/is (PERSON)] attending?
[PROBE FOR T OR P: Is that before or after kindergarten?]

SGRADE

NURSERY/PRESCHOOL/PREKINDERGARTEN/HEAD START	N	(GO TO SX11)
TRANSITIONAL KINDERGARTEN (BEFORE K)	T	(GO TO SX11)
KINDERGARTEN	K	(GO TO SX11)
PREFIRST GRADE (AFTER K)	P	(GO TO SX11)
FIRST GRADE	1	(GO TO SX11)
SECOND GRADE	2	(GO TO SX11)
THIRD GRADE	3	(GO TO SX11)
FOURTH GRADE	4	(GO TO SX11)
FIFTH GRADE	5	(GO TO SX11)
SIXTH GRADE	6	(GO TO SX11)
SEVENTH GRADE	7	(GO TO SX11)
EIGHTH GRADE	8	(GO TO SX11)
NINTH GRADE/FRESHMAN IN HIGH SCHOOL	9	(GO TO SX11)
TENTH GRADE/SOPHOMORE IN HIGH SCHOOL	10	(GO TO SX11)
ELEVENTH GRADE/JUNIOR IN HIGH SCHOOL	11	(GO TO SX11)
TWELFTH GRADE/SENIOR IN HIGH SCHOOL	12	(GO TO SX11)
UNGRADED ELEMENTARY/SECONDARY	U	(GO TO SX10)
SPECIAL EDUCATION	S	(GO TO SX10)
VOCATIONAL/TECHNICAL AFTER HIGH SCHOOL	15	(GO TO SX9A)
COLLEGE (UNDERGRADUATE)	16	(GO TO SX9B)
GRADUATE, PROFESSIONAL SCHOOL	17	(GO TO SX9C)
REFUSED	-7	(RECODE SX8 = -7 AND GO TO BOX)
DON'T KNOW	-8	(RECODE SX8 = -8 AND GO TO BOX)

[IF T: In this interview, we will be referring to that as "kindergarten."
IF P: In this interview, we will be referring to that as "prefirst grade."]

EXPA

SX9A. In terms of credits earned and requirements fulfilled, what year of vocational/ technical school [are you/is (PERSON)] in now?

XVOCYEAR

FIRST	1	(GO TO SX11)
SECOND OR HIGHER	2	(GO TO SX11)
REFUSED	-7	(GO TO SX11)
DON'T KNOW	-8	(GO TO SX11)

SX9B. What is [your/(PERSON's)] class standing? That is, [are you/is (PERSON)] a freshman, sophomore, junior, or senior?

XCOLYEAR

FRESHMAN	1	(GO TO SX11)
SOPHOMORE	2	(GO TO SX11)
JUNIOR	3	(GO TO SX11)
SENIOR	4	(GO TO SX11)
REFUSED	-7	(GO TO SX11)
DON'T KNOW	-8	(GO TO SX11)

SX9C. In terms of credits earned and requirements fulfilled, what year of graduate or professional school [are you/is (PERSON)] in now?

XGRAYEAR

FIRST	1	(GO TO SX11)
SECOND	2	(GO TO SX11)
THIRD	3	(GO TO SX11)
FOURTH OR HIGHER	4	(GO TO SX11)
REFUSED	-7	(GO TO SX11)
DON'T KNOW	-8	(GO TO SX11)

ENUM

SX10. What grade would [you/(PERSON)] be in if [you/(he/she)] were (attending a school/ attending a school with regular grades)?

SGRADEQ [PROBE FOR T OR P: Is that before or after kindergarten?]

NURSERY/PRESCHOOL/PREKINDERGARTEN/HEAD START	N	
TRANSITIONAL KINDERGARTEN (BEFORE K)	T	
KINDERGARTEN	K	
PREFIRST GRADE (AFTER K)	P	
FIRST GRADE	1	
SECOND GRADE	2	
THIRD GRADE	3	
FOURTH GRADE	4	
FIFTH GRADE	5	
SIXTH GRADE	6	
SEVENTH GRADE	7	
EIGHTH GRADE	8	
NINTH GRADE/FRESHMAN IN HIGH SCHOOL	9	
TENTH GRADE/SOPHOMORE IN HIGH SCHOOL	10	
ELEVENTH GRADE/JUNIOR IN HIGH SCHOOL	11	
TWELFTH GRADE/SENIOR IN HIGH SCHOOL	12	
UNGRADED/NO EQUIVALENT	U	
VOCATIONAL/TECHNICAL AFTER HIGH SCHOOL	15	
COLLEGE (UNDERGRADUATE)	16	
GRADUATE, PROFESSIONAL SCHOOL	17	
REFUSED	-7	(RECODE SX8 = -7 AND GO TO BOX)
DON'T KNOW	-8	(RECODE SX8 = -8 AND GO TO BOX)

[IF T: In this interview, we will be referring to that as "kindergarten."
IF P: In this interview, we will be referring to that as "prefirst grade."]

If SX8 = 1 (in home school), go to first box after SX12.
Else, ask SX11.

EXPA

SX11. [Do you/Does (PERSON)] go to a public or a private school?

XPUBL

PUBLIC 1
PRIVATE 2
REFUSED ..... -7
DON'T KNOW ..... -8

If SX9 or SX10 = N, T, or K or SX7 = 1 and AGE >=16 or -7, -8 (person enrolled in nursery school or kindergarten or age 16 or older and currently enrolled in school), then ask SX12. Else, go to first box after SX12.

SX12. [Are you/Is (PERSON)] now enrolled in school full time or part time?

XFULTIM

FULL TIME 1
PART TIME 2
REFUSED ..... -7
DON'T KNOW ..... -8

EXPA

Ask SX7 to SX12 for next person enrolled in school. After last person, go to next box.

If (SX7 and SX8 = 2, -7, -8) or (SX9 or SX10 = 15, 16, 17, -7, -8, and AGE >= 16 or -7, -8) (person age 16 and older who is not currently enrolled in grade/equivalent 12 or below, ungraded elementary or secondary, or special education), then ask SX13 to SX15. Else, go to first box after SX15.

SX13. [Now I have a few questions about (you/you and the other adults(s) in your household).] What is the highest grade or year of school that [you/(ADULT)] completed?

XGRADE

XGRAD1	UP TO 8TH GRADE 1	(ENTER ACTUAL GRADE, GO TO SX14)
XGRAD2	9TH TO 11TH GRADE 2	(ENTER ACTUAL GRADE, GO TO SX14)
	12TH GRADE BUT NO DIPLOMA 3	(GO TO SX14)
	HIGH SCHOOL DIPLOMA/EQUIVALENT 4	(GO TO SX15)
	VOC/TECH PROGRAM AFTER HIGH SCHOOL BUT NO VOC/TECH DIPLOMA 5	(GO TO SX14)
	VOC/TECH DIPLOMA AFTER HIGH SCHOOL 6	(GO TO SX14)
	SOME COLLEGE BUT NO DEGREE 7	(GO TO SX14)
	ASSOCIATE'S DEGREE 8	(GO TO BOX AFTER SX14)
	BACHELOR'S DEGREE 9	(GO TO BOX AFTER SX14)
	GRADUATE OR PROFESSIONAL SCHOOL BUT NO DEGREE 10	(GO TO BOX AFTER SX14)
	MASTER'S DEGREE (MA, MS) 11	(GO TO BOX AFTER SX14)
	DOCTORATE DEGREE (PHD, EDD) 12	(GO TO BOX AFTER SX14)
	PROFESSIONAL DEGREE AFTER BACHELOR'S DEGREE (MEDICINE/MD; DENTISTRY/DDS; LAW/JD/LLB; ETC.) 13	(GO TO BOX AFTER SX14)
	REFUSED ..... -7	(GO TO SX14)
	DON'T KNOW ..... -8	(GO TO SX14)

ENUM

SX14. [Do you/Does (ADULT)] have a high school diploma or its equivalent, such as a GED?

SDIPLOMA

YES	1
NO	2
REFUSED	-7
DON'T KNOW	-8

EXPA

Ask SX13 to SX14 for next person age 16 and older who is not currently enrolled in grade 12 or below, ungraded elementary or secondary, or special education. After last person, go to next box.

If AGE >16 or -7, -8 (person age 16 or older), then ask SX15. After last person, go to SX16.

SX15. What is [your/(ADULT'S)] marital status? [VERIFY IF KNOWN.]

XMARSTAT

MARRIED/REMARRIED	1
SEPARATED	2
DIVORCED	3
WIDOWED	4
NEVER MARRIED	5
REFUSED	-7
DON'T KNOW	-8

XSCR

SX16. Not counting the Reserves or National Guard, (are you/is any member of your household) currently serving on active duty in the U.S. Armed Forces?

XHHACTV

YES	1	(GO TO BOX)
NO	2	(GO TO SX17)
REFUSED	-7	(GO TO SX17)
DON'T KNOW	-8	(GO TO SX17)

EXPA

If SX16 = 1 (on active duty) and respondent is the only adult in the household, autocode SX16OV to respondent's person number. Else, go to SX16OV.

SX16OV. (Who is that?) [DISPLAY HOUSEHOLD MEMBERS WITH AGE >= 16. CODE ALL THAT APPLY. IF RESPONDENT IS THE ONLY HOUSEHOLD MEMBER, CODE THE PERSON NUMBER OF THE RESPONDENT.]

XACTVDUT

PERSON NUMBER	☐☐	(INELIGIBLE)
REFUSED	-7	
DON'T KNOW	-8	

XSCR

SX17. (Were you/Was everyone in your household) born in this country, that is, in one of the 50 States or the District of Columbia?

XHHBORN

YES	1	(GO TO SX18)
NO	2	(GO TO BOX AFTER SX18)
REFUSED	-7	(GO TO BOX AFTER SX18)
DON'T KNOW	-8	(GO TO BOX AFTER SX18)

SX18. (Did you/Did every member of your household) learn English as (your/their) first language?

XHHLANG

YES	1	(GO TO 1ST BOX AFTER SX20)
NO	2	(GO TO BOX)
REFUSED	-7	(GO TO BOX)
DON'T KNOW	-8	(GO TO BOX)

If SX17 = 2, -7, -8 (not every household member was born in the U.S.), then ask SX19 for each person in the household; also ask SX20 for each person where AGE >= 3, -7, -8 (age 3 or older). If SX18 = 2, -7, -8 (not every household member learned English as their first language), ask SX20 for each person where AGE >= 3 or -7, -8 (age 3 or older).

EXPA

SX19. In what country [were you/was (PERSON)] born?

XBORNUS

	50 STATES OR THE DISTRICT OF COLUMBIA	1
	U.S. TERRITORIES: PUERTO RICO, GUAM, AMERICAN SAMOA, MARIANA ISLANDS, U.S. VIRGIN ISLANDS, OR SOLOMON ISLANDS	2
XBORNOS1	(SPECIFY) _____	
	SOME OTHER COUNTRY	3
XBORNOS2	(SPECIFY) _____	
	REFUSED	-7
	DON'T KNOW	-8

SX20. What was the first language [you/(PERSON)] learned to speak?

XLANG

	ENGLISH	1
	SPANISH	2
	SPANISH AND ENGLISH EQUALLY	3
	OTHER LANGUAGE	91
XLANGOS	(SPECIFY) _____	
	REFUSED	-7
	DON'T KNOW	-8

Ask SX21 and SX22 for each person. After last person, go to first box after SX22 (Sampling Point).

SX21. [Are you/Is (PERSON)] ....
[IF R GIVES RACE AND ALSO SAYS HE/SHE IS OF HISPANIC ORIGIN, CODE RACE HERE.]

EXPA.RACE

White	1	(GO TO SX22)
Black	2	(GO TO SX22)
American Indian or Alaskan Native	3	(GO TO SX22)
Asian or Pacific Islander, or	4	(GO TO SX22)
Some other race?	5	(GO TO SX21A)
REFUSED	-7	(GO TO SX21)
DON'T KNOW	-8	(GO TO SX21)

SX21A. [CODE RESPONSE IF SX21 = 5.]

EXPA.OTH

HISPANIC/LATINO/MEXICAN/SPANISH/ PUERTO RICAN	1	(AUTOCODE SX22=1 AND GO TO BOX AFTER SX22)
MORE THAN ONE RACE/BIRACIAL/MULTIRACIAL	2	
OTHER	91	
(SPECIFY) _____		

SX22. [ARE YOU/IS (PERSON)] OF HISPANIC ORIGIN?

EXPA.HISPANC

YES	1
NO	2
REFUSED	-7
DON'T KNOW	-8

Sampling Point:
Select children and adults for extended interviews.
If any children are selected, go to next box.
If adults only are selected, go to second box after SX24.
If no one is selected, go to LINTRO.

Ask SX23 and SX24 for each sampled child. If there is only one household member, other than the sampled child, who is at least 12 years older than that child, autocode SX23 to this adult.
If the sampled child is the only or oldest person in the household, go to THANK2.

ENUM

SX23. We would like to ask some questions about (your/(CHILD)'s) (care and) education.

RESPNUM [IF SCREENER RESPONDENT IS OBVIOUSLY CHILD'S MOTHER, ASK: Are you (CHILD)'s mother? IF YES, ENTER HER PERSON NUMBER.]

[IF SCREENER RESPONDENT MIGHT NOT BE CHILD'S MOTHER, ASK: Who is the parent or guardian in this household who knows the most about (your/(CHILD)'s) (care and) education?]

[DISPLAY HOUSEHOLD MEMBERS 16 YEARS OLD AND OLDER.]

PERSON NUMBER ..... ☐☐

If person number at SX23 NE person number of sampled child, ask SX24 for each sampled child, and then go to HHSELECT screen to select interview. If person number at SX23 = person number of sampled child, display household members at least 12 years older than the sampled child and ask SX24 for each household member listed. The respondent for the parent interview will be selected in the following order of relationship: mother, father, grandmother, aunt, sister, grandfather, uncle, brother, cousin, other relative (but not husband/wife), or nonrelative (but not boyfriend/girlfriend). If no household member is so designated, the sampled child is ineligible; go to LINTRO. If a respondent for the parent interview is selected, go to HHSELECT screen to select interview.

SX24. What is [your/(CAREGIVER'S)/(PERSON'S)] relationship to [(CHILD)/you]? [VERIFY IF KNOWN]

PARRELN

MOTHER (BIRTH/ADOPTIVE/STEP/FOSTER)	1
FATHER (BIRTH/ADOPTIVE/STEP/FOSTER)	2
BROTHERS, INCLUDING STEP, ADOPTED, AND FOSTER	3
SISTERS, INCLUDING STEP, ADOPTED, AND FOSTER	4
GRANDPARENT	5
AUNT	6
UNCLE	7
COUSIN	8
OTHER RELATIVE/GUARDIAN (BUT NOT HUSBAND/WIFE)	9
NONRELATIVE/GUARDIAN (BUT NOT BOYFRIEND/GIRLFRIEND)	10
HUSBAND/WIFE/BOYFRIEND/GIRLFRIEND	11
REFUSED	-7
DON'T KNOW	-8

If PARRELN = 5 (grandparent) use that person's sex with PARRELN to set RELATION and drive displays.

If sampled adult is not the screener respondent and SX7 = 1 and SX9 = 15, 16, 17 (enrolled in college, graduate school or vocational/technical school after high school) for that person, ask SX25. Else, go to HHSELECT (Adult CI extended interview).

SX25. Is (ADULT) living there, in student housing, or somewhere else?

LIVENOW

HERE	1	(GO TO HHSELECT)
STUDENT HOUSING [This includes all housing owned, sponsored, or leased by the school such as a dormitory or fraternity or sorority house.]	2	(GO TO SX26)
OTHER PRIVATE HOME OR APARTMENT	3	(INELIGIBLE, GO TO THANK2)
INSTITUTION OR GROUP QUARTERS [THIS INCLUDES A JAIL OR DETENTION CENTER, MEDICAL FACILITY, REHABILITATION CENTER, MENTAL HEALTH FACILITY, MILITARY BARRACKS, OR GROUP FOSTER CARE.]	4	(INELIGIBLE, GO TO THANK2)
REFUSED	-7	(GO TO HHSELECT)
DON'T KNOW	-8	(GO TO HHSELECT)

SX26. Would you please give me (his/her) last name and telephone number so that we can call (him/her) to do a brief interview about activities related to civic involvement?

LNAME	LAST NAME _____	
ENUM.ENUMAREA	PHONE _____	
EXCH	REFUSED	-7
LOCL	DON'T KNOW	-8

1996 Topical Component: Household Public Library Usage

LINTRO. (These next questions are about/We are interested in) public libraries. This does not include school or college libraries, or special research libraries.

L1. About how far would you say it is from your home to the closest public library? Would you say...

LDISTANC

Less than 1 mile,	1
1 or 2 miles,	2
3 to 5 miles,	3
6 to 10 miles, or	4
More than 10 miles?	5
REFUSED	-7
DON'T KNOW	-8

L2. People use public libraries in a number of ways. In the past month, that is, since (MONTH) (DAY), has any member of your household used a public library in the following ways? How about...

			YES	NO	R	DK
LVISIT1	a.	Going to a public library to borrow or drop off books or tapes?	1	2	-7	-8
LVISIT2	b.	Going to a public library for any other purpose, such as a lecture or story hour, or to use their equipment?	1	2	-7	-8
LCOMP	c.	Using a home computer to link to a public library?	1	2	-7	-8
LPHONE	d.	Calling the public library to renew books or for information other than library hours or directions?	1	2	-7	-8
LMATLS	e.	Having library materials mailed or delivered to your home?	1	2	-7	-8
LMOBILE	f.	Visiting a bookmobile?	1	2	-7	-8

If L2a through L2f = 2 (no use of public libraries), ask L3. Else, go to L4.

L3. Has anyone in your household used a public library in any of those ways in the past year?

LYRUSE

YES	1	(GO TO BOX AFTER L4)
NO	2	(GO TO BOX AFTER L4)
REFUSED	-7	(GO TO BOX AFTER L4)
DON'T KNOW	-8	(GO TO BOX AFTER L4)

L4. In the past month, that is since (MONTH) (DAY), has any member of your household used a public library (or bookmobile) for the following purposes? How about...

			YES	NO	R	DK
LSCHOOL	a.	For a school or class assignment?	1	2	-7	-8
LKIDSACT	b.	A program or activity designed for children age 6 to 12?	1	2	-7	-8
LKIDBOOK	c.	An activity for children under 6, such as story hour or other introduction to books and reading?	1	2	-7	-8
LRECR	d.	For enjoyment or hobbies, including to borrow books or tapes or attend activities?	1	2	-7	-8
LJOBHELP	e.	To get information to help find a job?	1	2	-7	-8
LWORK	f.	For a work assignment or to keep up to date at work?	1	2	-7	-8
LCONSUME	g.	To get information for personal use, such as consumer or health issues, investments, and so on?	1	2	-7	-8
LLRNREAD	h.	To work with a tutor or take a class to learn to read?	1	2	-7	-8

If library items are administered before matrix, go to PRE_S6. If library items are administered in the Parent Interview, go to SX27.

Household Characteristics XSCR

SX27. Now a few more questions about your household. Do you...

HOWNHOME

Own your home, ... 1
Rent your home, or 2
Have some other arrangement? 3
REFUSED ..... -7
DON'T KNOW ..... -8

SX28. Besides (PHONE NUMBER), do you have other telephone numbers in your household?

HOTHNUM

YES ..... 1 (GO TO SX29)
NO ..... 2 (GO TO SX30)
NOT MY NUMBER [RECORD NUMBER IN COMMENTS] ..... 3 (GO TO SX30)
REFUSED ..... -7 (GO TO SX30)
DON'T KNOW ..... -8 (GO TO SX30)

SX29. How many of these additional telephone numbers are for home use?

HNUMUSE

NUMBER ..... ☐☐
REFUSED ..... -7
DON'T KNOW ..... -8

SX30. So that we can group households geographically, may I have your ZIP code?

HZIPCODE

ZIP CODE ..... ☐☐☐☐☐
REFUSED ..... -7
DON'T KNOW ..... -8

SX31. Which of these best describes the community where you live? Is it...

HCCOMMUN

A rural or farming community, ... 1
A suburb of a city, ... 2
A small city or town of fewer than 50,000 people, or 3
A city of 50,000 people or more? 4
REFUSED ..... -7
DON'T KNOW ..... -8

If SX31 = 2 (suburb), go to SX31OV. Else, if SX31 = 4 (city of 50,000 people or more), go to SX31OV2. Else, go to box after SX31OV2.

SX31OV. Is it a suburb of...

HCSUB

A city with over 500,000 people,	1	(GO TO BOX AFTER SX31OV2)
A city with 100,000 to 500,000, or	2	(GO TO BOX AFTER SX31OV2)
A city with 50,000 to 100,000?	3	(GO TO BOX AFTER SX31OV2)
REFUSED	-7	(GO TO BOX AFTER SX31OV2)
DON'T KNOW	-8	(GO TO BOX AFTER SX31OV2)

SX31OV2. Is it ...

HCCITY

A city with over 500,000 people,	1
A city with 100,000 to 500,000, or	2
A city with 50,000 to 100,000?	3
REFUSED	-7
DON'T KNOW	-8

Ask SX32 if NUMKID20 (number of children age 20 or younger) >= 1. Else, go to SX33.

SX32. In the past 12 months, has your family received funds or services from any of the following programs? How about...

		YES	NO	R	DK
HWIC	a. Women, Infants, and Children, or WIC?	1	2	-7	-8
HFOODST	b. Food Stamps?	1	2	-7	-8
HAFDC	c. AFDC, or Aid to Families with Dependent Children?	1	2	-7	-8

SX33. In studies like this, households are sometimes grouped according to income. What was the total income of all persons in your household over the past year, including salaries or other earnings, interest, retirement, and so on for all household members?

Was it...

HINCMRNG

$25,000 or less, or	1	(READ SET 1)
More than $25,000?	2	(READ SET 2)
REFUSED	-7	(GO TO THANK2)
DON'T KNOW	-8	(GO TO THANK2)

Was it...

HINCOME

[SET 1]

$5,000 or less	1
$5,001 to $10,000	2
$10,001 to $15,000	3
$15,001 to $20,000, or	4
$20,001 to $25,000?	5

[SET 2]

$25,001 to $30,000	6	
$30,001 to $35,000	7	
$35,001 to $40,000	8	
$40,001 to $50,000	9	
$50,001 to $75,000, or	10	
Over $75,000?	11	
REFUSED	-7	(GO TO THANK2)
DON'T KNOW	-8	(GO TO THANK2)

Ask SX33OV if
(Number in HH = 2 and HINCOME < = 2) or
(Number in HH = 3 and HINCOME < = 3) or
(Number in HH = 4 and HINCOME < = 3) or
(Number in HH = 5 and HINCOME < = 4) or
(Number in HH = 6 and HINCOME < = 4) or
(Number in HH = 7 and HINCOME < = 5) or
(Number in HH = 8 and HINCOME < = 5) or
(Number in HH = 9 and HINCOME < = 6) or
(Number in HH = 10 and HINCOME < = 6) or
(Number in HH = 11 and HINCOME < = 7) or
(Number in HH = 12 and HINCOME < = 7).
Else, go to THANK2.

SX33OV. What was your total income last year, to the nearest thousand?

HINCMEXT

AMOUNT	$☐☐,☐☐☐
REFUSED	-7
DON'T KNOW	-8

THANK1. Thank you, but we are only interviewing in private residences.

THANK2. Those are all the questions I have about your household. Thank you for your time.

Appendix B:

Advance Letter

U.S. DEPARTMENT OF EDUCATION
OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT

NATIONAL CENTER FOR EDUCATION STATISTICS

August, 1995

Dear Potential Study Participant,

I am writing to strongly encourage your participation in an upcoming telephone survey, the National Household Education Survey (NHES). One purpose of the NHES is to find out how families and schools work together to shape the learning experiences of children. We are also interested in how both young people and adults learn about and are involved in their communities and their country. Finally, we want to know about how people use public libraries. Your household may be asked about one or more of these topics.

The NHES is sponsored by the National Center for Education Statistics of the United States Department of Education. Your telephone number was selected for the study as part of a scientific random sample of all households in the nation, and another number cannot be substituted for yours. Your household represents thousands of households in the United States. It is very important that you take part in our survey so that our results show a true picture for the whole nation.

Westat, Inc., a professional research firm, will be conducting the NHES. The study will take place from January 2 to March 31. Sometime during that time, a Westat interviewer will call you. If we happen to call at an inconvenient time, please suggest a time that is better for you. If you would like to set an appointment anytime before we call, contact Westat at their toll-free number (1-800-862-9452). You will need to give your phone number and your preferred appointment time.

Some questions and answers about the NHES are printed on the back of this letter. I hope you will take part in this very important study.

Sincerely,

Kathryn Chandler
Project Officer
National Household Education Survey

Some Frequently Asked Questions about the National Household Education Survey (NHES)

Q. ***How will the study results be used? What will you do with this information?***

A. The information we collect will tell us about people's experiences with schools, libraries, and their communities, and help us understand educational experiences and needs. Some information from the study will be published in the annual report on the National Education Goals. Other findings will be published in U.S. Department of Education reports. Those reports will be widely distributed to educators, researchers, news organizations, and the general public.

Q. ***How did you get my telephone number?***

A. Your telephone number was randomly selected from all of the possible telephone numbers in the nation. We do not use telephone directories to select telephone numbers.

Q. ***How did you get my address?***

A. After the telephone numbers were randomly selected, we sent them to a company which provided addresses for those telephone numbers. That company gave us the file that was used to address the envelopes for this mailing. No records were kept of the addresses after this mailing was completed, and addresses are not on the file that contains the telephone numbers. Interviewers do not have the names or addresses for any telephone numbers.

Q. ***Will you keep my information confidential?***

A. All information you give to the interviewer will be kept completely confidential. All employees of the U.S. Department of Education and Westat who are working on this study are required by law to protect the confidentiality of respondents. Also, individual responses are never published in reports; they are added to the responses of others and are published as combined information only.

Q. ***How long will the survey take?***

A. All households are asked to participate in an initial interview that usually takes 5 to 7 minutes. This includes questions about household members and about public library use. We use information about household members to determine whether anyone in your household will be selected for an additional interview. In more than half of the households, no one is selected for an additional interview. In other households, we ask questions about how families and schools work together to shape children's learning experiences and/or how young people and adults learn about and are involved in their communities and their country. These additional interviews take about 15 to 20 minutes.

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